<u>REMARKS</u>

Claims 17-25 remain in this application. Claims 1-16 have been cancelled without prejudice. Claim 17 has been amended.

No new matter has been added. Reconsideration is respectfully requested.

Applicant gratefully acknowledges the telephone interview held on May 5, 2009, between Examiners James A. Fletcher and Thai Tran, and applicant's representative, Benjamin Fishman, registration number 57,030. Philip Alper, who was involved in preparing the response to the previous office action, also participated in the interview.

In the interview, the final element of claim 17 prior to the present amendment, reciting "in response to the requirement, displaying the respective representative frames for different, respective periods of time … video segments," was discussed. Applicant's representatives pointed out that Chen et al. (US Patent 7,046,910) does not teach or suggest displaying frames for different periods of time. Examiner Fletcher stated that he would review Chen after submission of applicant's formal response.

Independent claim 17 was rejected under 35 U.S.C. §103(a) over Dimitrova et al. (US Patent 6,137,544) in view of Chen. Applicant has amended claim 17 to clarify the distinction of the claim over the cited art. The amendment is supported in page 21, lines 22 – 28 of the specification.

Independent claim 17 recites a method for displaying a video sequence at an accelerated rate. From a stream of video frames respective representative frames are identified for successive video segments of the stream.

The video segments have <u>different numbers of frames, and the method recites determining the different numbers of frames in the segments</u>. To achieve a desired acceleration factor the representative frames are displayed for <u>different periods of time</u>. The different periods of time are calculated in response to the desired acceleration factor and to <u>the different numbers of the video frames determined to be in the successive video segments</u>.

Dimitrova describes a video indexing system which analyzes contents of video and develops a visual table of contents using selected images. Dimitrova detects video cuts from one scene to another, so as to detect "significant" scenes (Abstract). However, careful search of the whole of Dimitrova reveals no hint, suggestion or teaching for <u>determining the different numbers</u> of video frames in segments of his video, as is required by claim 17. Rather, Dimitrova analyzes his stream to find keyframes, <u>without enumerating numbers of frames associated with the keyframes</u>.

The Examiner stated that Dimitrova is silent regarding receiving a requirement to output the stream with an acceleration factor.

The Examiner consequently referenced Chen, citing col. 4, lines 10-14 and col. 5, lines 16-19. The former citation states: "Such trick play modes can comprise, for example, pause, scan forward, scan backward, jump, and still frame displays (e.g., for film indexing). Such features are particularly advantageous for use with video on demand (VOD) services." The latter citation states: "The general concept of the present invention is to replace one P-frame from the progressive I-slice refreshed MPEG data stream with a complete I-frame every 'refresh rate' (N) number of frames."

Chen describes a system that generates I-frames (complete, intra-coded video frames in a compressed format) from a particular type of video data stream: "progressive I-slice refreshed MPEG data streams" (col.

5   4, lines 5-6). In this type of data stream I-frames are distributed as slices within P-frames (prediction frames in a compressed format) of the stream. As is summarized in the col. 5, lines 16-19 citation of Chen given above, Chen recovers an I-frame from the I-slices, selects one

10 of the P-frames of the stream according to a "refresh rate" number of frames, and replaces the selected P-frame with the recovered I-frame. The recovered I-frames are stored and indexed for later trick play display (col. 3, lines 37-38).

15   Chen's I-frames are compressed frames which, by definition, are able to provide a fully specified picture. Such frames, while completely specifying the picture, are not representative frames of a segment. Rather, the I-frames are reference frames, and Chen's P-

20 frames are generated by finding differences from these reference frames. Since there is no limitation on the differences between a P-frame and its associated I-frame, there is no correlation between the representative frames recited in claim 17 and the reference frames of Chen.

25   HoweverFurthermore, Chen's I-frame refresh rate is a fixed rate, which is set by an encoder of Chen's compressed frames (col. 4, lines 58-63). Fig. 1 illustrates a progressive I-slice refreshed MPEG data stream that Chen describes, using as an example a refresh

30 rate of 10 (col. 4, line 66 – col. 5, line 15). Because the refresh rate is fixed, the recovered I-frames generated by Chen have a fixed frequency, so that in the

example of Fig. 1, every 10 frames generate 1 recovered I-frame.

Even assuming, for the sake of argument, that Chen's (compressed) I-frames correspond to the representative frames recited in claim 17, Chen is completely silent with respect to displaying his (compressed) I-frames for different times to achieve his trick play mode, and Chen does not even hint at a mechanism for such a type of display. Rather, Chen teaches away from the concept of displaying his I-frames for different times according to different numbers of frames in his video segments, since Chen's fixed refresh rate of necessity generates equal numbers of frames in his video segments. Thus, for a given acceleration factor for Chen's trick play, the I-frames will display for equal times.

Thus none of the cited art, taken separately or in combination, suggests or teaches determining different respective numbers of video frames in successive video segments of a video stream. Furthermore none of the cited art suggests or teaches, in response to a request to output the stream at a desired acceleration factor, displaying respective representative frames of the segments for different respective periods of times according to the different number of frames determined to be in the segments. Claim 17 recites both of these requirements. Independent claim 17 is therefore believed to be patentable over the cited art.

Dependent claims 18-25 were rejected under 35 U.S.C. §103(a) over Dimitrova in view of Chen. Claims 18-25 depend directly or indirectly from independent claim 17. In view of the patentability of claim 17, claims 18-25 are also believed to be patentable.

Applicant believes that the above amendments and remarks are fully responsive to all of the objections and grounds of rejection raised by the Examiner. In view of these amendments and remarks, applicant respectfully submits that all of the claims currently pending in the present application are in order for allowance. Notice to this effect is respectfully requested.

Please charge any fees associated with this response to Deposit Account 09-0468.

Respectfully submitted,

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Date: 3 June 2009
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